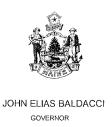
STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



DAVID P. LITTELL
COMMISSIONER

Hancock Lumber Company, Inc. Oxford County Bethel, Maine A-1-71-Q-R (SM)

Departmental Findings of Fact and Order Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

- 1. Hancock Lumber Company, Inc. (Hancock) has applied to renew their Air Emission License permitting the operation of emission sources associated with their sawmill.
- 2. The equipment addressed in this license is located at 639 Walker's Mills Rd, Bethel, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum <u>Firing Rate</u>	Fuel Type, <u>% sulfur</u>	Stack #
Boiler #1	25.05	178.9 gal/hr	#2 fuel oil, 0.35%	4
Boiler #2	29.5	3.3 ton/hr (50% moisture)	wood waste	1
Planer Mill Gasifier	3.0	0.33 ton/hr (50% moisture)	wood waste	3
Emergency Fire Pump	1.33	9.7 gal/hr	diesel fuel, 0.05%	2

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Process Equipment

Hancock operates nine kilns, various wood saws, planers, and shaving/sawdust handling equipment.

C. Application Classification

The application for Hancock does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the fuel limit on the boilers and gasifier, the operating hours restriction on the emergency fire pump, and the throughput limit on the kilns, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler #1

Boiler #1 was installed in 1996 with a maximum design capacity of 25.05 MMBtu/hr. It is therefore subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

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A summary of the BPT analysis for Boiler #1 is the following:

- 1. The total fuel use for Boiler #1 shall not exceed 1,000,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.35% by weight.
- 2. Low Sulfur Fuel, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however in this case it was determined a more stringent limit of 0.35% was required in order to meet Ambient Air Quality Guidelines.
- 3. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
- 4. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
- 5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
- 6. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

C. Boiler #2

Boiler #2 was installed in 1998 and was originally designed to fire #2 fuel oil. In 2001 Boiler #2 was retrofitted with a stoker to allow wood waste to be combusted. The oil firing capacity of the boiler was not retained. In 2008 Hancock replaced the pressure vessel. This increased the maximum heat input of Boiler #2 to 29.5 MMBtu/hr.

Boiler #2 is equipped with a multiclone and fly ash reinjection for control of particulate matter.

Since Boiler #2 was installed after 1989 with a maximum heat input greater than 10 MMBtu/hr, it is therefore subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #2 is the following:

- 1. Fuel use for Boiler #2 shall not exceed 28,700 ton/year (12-month rolling total) of wood based on a moisture content of 50%.
- 2. Hancock shall use the following formula, when necessary, to convert fuel use records to 50% moisture:

Tons Wood at 50% = (Tons of Wood at M%) x [(100-M)/50]

where M = the moisture content of the actual wood fired

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3. Hancock shall continuously operate the multiclone on Boiler #2 when Boiler #2 is in operation.

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- 4. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. However, in this case the BPT analysis determined that a more stringent limit of 0.25 lb/MMBtu was appropriate and shall be used. The PM₁₀ limits are derived from the PM limits.
- 5. SO₂ and CO, emission limits are based upon AP-42 data dated 9/03.
- 6. NO_x and VOC emission limits are based on manufacturer's supplied data.
- 7. Visible emissions from Boiler #2 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Planer Mill Gasifier

The Planer Mill Gasifier has a maximum design heat input of 3.0 MMBtu/hr firing 0.33 tons/hr of wood and sawdust at approximately 50% moisture.

A summary of the BPT analysis for the Planer Mill Gasifier is the following:

- 1. The total fuel use for the Planer Mill Gasifier shall not exceed 2,920 ton/year at 50% moisture (or equivalent) of wood waste, based on a 12 month rolling total.
- 2. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. However in this case a BPT analysis for PM determined a more stringent limit of 0.20 lb/MMBtu was appropriate and shall be used.
- 3. SO₂, NO_x, CO and VOC emission limits are based on data from a previous BACT analysis.
- 4. Visible emissions from the Gasifier shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

E. Emergency Fire Pump

Hancock operates an Emergency Fire Pump.

Back-up (emergency) generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available.

The Emergency Fire Pump was installed prior to July 11, 2005. Therefore, the Emergency Fire Pump is not subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

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A summary of the BPT analysis for the Emergency Fire Pump (1.33 MMBtu/hr) is the following:

- 1. The Emergency Fire Pump shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
- 2. The Emergency Fire Pump shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all operating hours.
- 3. Low Sulfur Fuel, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however in this case a BPT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
- 4. The PM and PM_{10} limits are derived from 06-096 CMR 103.
- 5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
- 6. Visible emissions from the Emergency Fire Pump shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

F. Kilns

Hancock operates a total of nine kilns for drying lumber. Heat for the kilns is provided by Boilers #1 and #2. The Department is not aware of any commercially available equipment for the control of VOCs from drying kilns. Therefore, BPT for the kilns is determined to be a yearly throughput limit of 42.0 million board feet based on a 12 month rolling total.

G. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

H. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

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I. Annual Emissions

Hancock shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boiler #1	7.0	7.0	24.7	25.9	2.5	0.1
Boiler #2	32.3	32.3	3.2	38.8	77.5	1.7
Planer Mill	2.6	2.6	0.5	2.8	11.9	0.5
Gasifier						
Emergency Fire	0.1	0.1	0.1	1.5	0.3	0.1
Pump						
Kilns		344 WH				47.5
Total TPY	42.0	42.0	28.5	69.0	92.2	49.9

III.AMBIENT AIR QUALITY ANALYSIS

Hancock previously submitted an ambient air quality analysis (A-1-71-P-A) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-1-71-Q-R subject to the following conditions.

<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This

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License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

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STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

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(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

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- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

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C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

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[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler #1**

- A. Total fuel use for Boiler #1 shall not exceed 1,000,000 gal/yr of #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	nission Unit Pollutant		Origin and Authority
Boiler #1	PM	0.10	06-096 CMR 115, BPT

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C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Boiler #1	2.51	2.51	8.83	9.27	0.89	0.04

D. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Boiler #2**

- A. Total fuel use for Boiler #2 shall not exceed 28,700 tons/yr at 50% moisture (or equivalent) of wood waste. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.25	06-096 CMR 115, BPT

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Boiler #2	7.37	7.37	0.74	8.85	17.69	0.38

- D. Hancock shall continuously operate the multiclone on the emissions from Boiler #2 whenever Boiler #2 is in operation. [06-096 CMR 115, BPT]
- E. Visible emissions from Boiler #2 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

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(18) New Source Performance Standards for Dc Boilers

Boilers #1 and #2 are subject to Federal New Source Performance Standards, Subpart Dc. Hancock shall comply with all requirements of 40 CFR Part 60, Subpart Dc including, but not limited to, the following:

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- A. Hancock shall record and maintain records of the amounts of each fuel combusted during each day.
- B. Hancock shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications for Boiler #1. (The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil.) The semi-annual reports are due within 30 days of the end of each 6-month period.
- C. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk EPA-New England, Region 1 5 Post Office Sq. Suite 100 Mail Code OES 04-2 Boston, MA 02109-3912

(19) Planer Mill Gasifier

- A. Total fuel use for the Gasifier shall not exceed 2,920 tons/yr at 50% moisture (or equivalent) of wood waste. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit Polluta		lb/MMBtu	Origin and Authority
Gasifier	PM	0.20	06-096 CMR 115, BPT

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Gasifier	0.60	0.60	0.12	0.63	2.71	0.11

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D. Visible emissions from the Gasifier shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 115, BPT]

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(20) Emergency Fire Pump

- A. Hancock shall limit the Emergency Fire Pump to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on the Emergency Fire Pump. [06-096 CMR 115, BPT]
- B. The Emergency Fire Pump shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The Emergency Fire Pump shall not be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]
- C. The Emergency Fire Pump shall fire diesel fuel with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [06-096 CMR 115, BPT]
- D. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Emergency Fire Pump	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

E. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Emergency Fire Pump	0.16	0.16	0.07	5.87	1.26	0.47

F. Visible emissions from the Emergency Fire Pump shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

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(21) Kilns

- A. Hancock shall not exceed a yearly throughput of 42.0 million board feet per year based on a 12 month rolling total. [06-096 CMR 115, BPT]
- B. Hancock shall keep monthly and 12-month rolling total records of board feet processed.

 [06-096 CMR 115, BPT]

(22) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(23) General Process Sources

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(24) Annual Emission Statement

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

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(25) Hancock shall notify the Department within 48 hours and submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 5th DAY OF February, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Jamas f. Browlyfor

DAVID P. LITTELL COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 7/2/09
Date of application acceptance: 7/15/09

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Ross, Bureau of Air Quality.

